**Hort360 Reef Certification**

**Forms**

  

Hort360 Reef Certification

Forms

2020

Growcom Australia

Queensland Fruit & Vegetable Growers Ltd trading as Growcom Australia

Level 2 231 George Street

Brisbane QLD 4000

PO Box 12101

George Street Brisbane Qld 4003

P: 07 3620 3844

F: 07 3620 3880

W: www.growcom.com.au

Growcom Australia Ltd would like to acknowledge Freshcare Limited for making the resources available. In development of the Hort360 Reef Certification Hort360 has utilised Food Safety and Quality v4.2 and Environmental v3 Standards without change.

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* Action Planning

|  |  |
| --- | --- |
| Business Name |  |
| Completed by: | Signature: | Date: |

**Hort360 Reef Certification Checklist**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Management** |  |  |
| Alignment | Evidence | Yes, No or N/A | Comments / further actions required |
|  | Hort360 |  |  |
| H1 | Hort360 Reef Certification report and date sighted (paper or electronic)* Hort360 Reef Certification report
* Date of report – no older than 12 months
* Complete the property page/s relating the property to be reef certified
	+ Property Info
	+ On-Farm Operations
	+ Lot & Plans
 |  |  |
| M1.2 | Identify property areas, infrastructure and local activities on a property map |  |  |
| M1.2 | Property map(s) are available and identify/include all applicable areas as specifiedProperty map(s) can be aerial photographs, topographical map, cadastral map, self-drawn map, overlays etc.  |  |  |
| M2 | Documentation |  |  |
| M2.1, M2.2 | Verify compliance with the Hort360 Reef Certification through relevant documents and records |  |  |
| M2.1, M2.2 | Current editions of the Hort360 Reef Certification are keptSighted copies (print or electronic)* Hort360 Reef Certification Introduction
* Hort360 Reef Certification Compliance
* Hort360 Reef Certification Forms
* Hort360 Reef Certification Interpretive Guideline
* Hort360 Reef Certification Rules
 |  |  |
| M2.1, M2.2 | All records and documents required to verify compliance to the Hort360 Reef Certification are legible and must include:* title
* date of issue or version number
* business name
* name of person completing the record and date of completion
 |  |  |
| M2.1, M2.2 | As documents and records change, out-of-date versions are replacedAll documents and records are current (a CAR to be raised if there is evidence of out-of-date documents in the system / being used). |  |  |
| M2.1, M2.2 | All records are kept for a minimum of three years in-line with tri annual auditing |  |  |
| M4 | Internal audit |  |  |
| M4.1.1 | Conduct internal audits via completion of Hort360 Reef BMP module to verify ongoing compliance |  |  |
| M4.2 | Complete corrective actions for non-compliance |  |  |
| M4.2.1 | A Corrective Action Record (CAR) must be completed when the requirements of the Hort360 Reef Certification, Freshcare Rules or legislation are not being met, as identified by:* Routine activities
* Tri-annual external audits
* A valid complaint received from a neighbour, customer or regulatory authority
* Environmental harm has occurred/may occur as a result of property activity, neighbouring activity or a natural event
 |  |  |
| M4.2.2 | Completed Form: Corrective Action Record, or equivalentmust include:* Description of the problem
* Cause of the problem
* Whether or not the problem has occurred before
* Short term fix (action taken to fix the problem)
* Long term fix (action taken to prevent the problem recurring)
* Confirmation that the short term and long term actions are completed and effective
* Name and signature of person completing the review
* Date of the review
 |  |  |
| M4.2.3 | Reoccurrences of non-compliance are reviewed by the owner or appropriate senior manager |  |  |
| Section completed by: | Date of completion: |
| **Nutrient Management** |
| Alignment | Evidence | Yes, No or N/A | Comments/further actions required |
| E5.1.1 | Testing / Target setting / Budgeting* results of soil/plant tissue/sap/fruitlet testing per soil type / management zone
* testing conducted by a NATA/ASPAC accredited lab
* lab test results and comments / recommendations
* suitably qualified / experienced person recommendations based on test results
 |  |  |
| E5.4.1F5.1.9 | Method and records of all fertiliser and soil additive applications are kept and must include:* application date
* location and crop
* product used
* rate of application
* wind speed and direction
* method of application/incorporation
* name and signature of the person applying the fertilisers and soil additives
 |  |  |
| E5.4.2 | A record of hydroponic nutrient solution monitoring is kept and must include:* monitoring date
* location and crop
* pH and electrical conductivity (EC) of the feed solution
* pH and electrical conductivity (EC) of the drainage solution
* quantity of drainage solution
* name and signature of the person conducting the monitoring activity
 |  |  |
| E5.3.2 | Equipment used to apply fertilisers and soil additives is calibrated at least annually or as per manufacturer’s instructions. A record of calibration is kept and must include:* description of method
* calibration results
* date of calibration
* name of the person calibrating the equipment
 |  |  |
| Section completed by: | Date of completion: |
| **Sediment Management** |
| Alignment | Evidence | Yes, No or N/A | Comments/further actions required |
| E2.1.1, E2.2.1 | For identified areas, applicable records of these practices are kept:* Contour map
* Evidence of maintained contour banks
* Photos / management zone walk of in-field soil erosion control measures – soil cover, drainage system, contour banks/rows, diversion banks, levelling
* Photos / management zone walk of bare inter-row with grassed headlands / grassed drains at ends of blocks / ground cover / grassed drains, headlands / vegetative buffers / sediment retention / roads
* Photos / management zone walk of plant bed (residue retention)
* Statement of tillage practice
* Structure designs and management
 |  |  |
| E6.3.3 | Water run-off or water discharge from property activities is managed or treated to minimise environmental harm on or off site* Photo of irrigation application system (sprinkler, etc.)
* Photos / management zone walk of riparian areas maintained
 |  |  |
| Section completed by: | Date of completion: |
| **Pesticide Management** |
| Alignment | Evidence | Yes, No or N/A | Comments/further actions required |
| Preventive pest and disease control programE4.1.3 | Completed Form: Preventive pest and disease control program, or equivalent. * Business name
* Date program developed
* Name of worker/person/organisation that documented program
* Crop/area to be treated
* Target pest/disease/weed
* Method of control to be used
	+ biological,
	+ chemical,
	+ cultural,
	+ mechanical and or
	+ technological
* Details of control method
* Frequency of use/stage of crop development

must include any limitations on the frequency of chemical use per crop/season |  |  |
| Pest and Disease monitoring recordPreventive pest and disease control programE4.1.3 | Completed Form: Pest and disease monitoring record, or equivalent. The decision to use agricultural chemicals is based on one or more of the following:* Crop and/or weather monitoring for pest and disease pressure. Records must include:
	+ date
	+ area/crop and/or weather parameters monitored
	+ monitoring result and action recommended
	+ name of the person who carried out the monitoring activity
* External agency pest and disease alerts. Records must include:
	+ evidence of subscription alerts
	+ date of alert
	+ pest or disease the alert is issued for
	+ source/agency that issued the alert
* Documented preventive pest and disease control programs. Records must include:
	+ date the program was documented
	+ crop or area to be treated
	+ target pest / disease / weed
	+ chemical to be used
	+ frequency of use (including any limitations on the frequency of chemical use per crop/season) or the stage of crop development
	+ name of the worker/person/organisation that documented the control program
* Industry preventive control programs or phytosanitary specifications. Records must include:
	+ An up-to-date copy of the industry program or phytosanitary specification.
 |  |  |
| Weather record E4.6.1, E4.6.2, E4.9.1&/or F4.5, F4.8 | Avoid potential for spray drift* Potential and actual spray drift incidents are identified

Records of all pre-harvest chemical applications are kept and must include:* + application date
	+ start and finish times
	+ location and crop
	+ chemical used (including batch number if available)
	+ rate of application and quantity applied
	+ equipment and/or method used to apply the chemical
	+ wind speed and direction
	+ withholding period (WHP) or earliest harvest date (EHD)
	+ method of disposal of leftover chemical solutions
	+ name and signature of the person who applied the chemical
 |  |  |
| Maintain and calibrate chemical application equipment E4.7& / or F4.6 | Completed Form: Calibration Record (Pesticides) or equivalent* Maintenance detailed on service/maintenance record.
* Records of servicing/parts available.
* Manufacturer’s instructions (if calibrating to a frequency documented by manufacturer).
* Demonstration/explanation of calibration methods.
* Calibration certificates
 |  |  |
| Section completed by: | Date of completion: |
| **Water Management** |
| Alignment | Evidence | Yes, No or N/A | Comments/further actions required |
| Water management program E6.1.2 | Irrigation requirements are determined using soil/growing medium, crop or weather monitoring methods, or a combination thereof* Monitoring records such as
	+ Soil moisture monitoring data, weather condition data, weather station data, satellite / drone imagery
* Photo / written evidence / management zone walk of monitoring equipment used to determine requirements
* Crop water requirement calculation using crop, soil & weather information
 |  |  |
| Manage water use on propertyE6.1.3 | Completed Form: Maintenance and Service – Irrigation application rate record, or equivalent |  |  |
| Section completed by: | Date of completion: |

The following templates set out the minimum required information per section of the compliance criteria

Corrective Action Record (CAR)

|  |
| --- |
| Business name: |
| Date CAR raised: | Person raising CAR: |
| What is the problem? |
| What caused the problem? |
| Has the problem occurred before? |
| If yes, review required by owner or appropriate senior manager |
| Short term fix *(what can be done now to fix the problem)* |
| Person responsible for action: | Date action completed: | Signature upon completion: |
| Long term fix *(what can be done to prevent the problem from happening again)* |
| Person responsible for action: | Date action completed: | Signature upon completion: |
| Have the actions taken been effective? *(If no, complete another CAR to identify alternative actions to be implemented)* |
| Reviewed by: | Signature: | Date of review: |

**Fertilisers and soil additives application record**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Location and crop** | **Product used and batch code (if applicable)** | **Rate of application** | **Wind speed and direction** | **Method of application / incorporation** | **Name and signature of operator** |
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**Hydroponic nutrient solution monitoring record**

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| --- |
| **Business name:** |
| **Date** | **Location and crop** | **pH and electrical conductivity (EC) of the feed solution** | **pH and electrical conductivity (EC) of the drainage solution** | **Quantity of drainage solution** | **Name and signature of person conducting monitoring** |
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**Calibration record (Fertiliser / Fertigation)**

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| --- |
| **Business name:** |
| **Date of calibration** | **Block / Management zone** | **Equipment calibrated** | **Method of calibration** | **Reading / results** | **Action taken / comments** | **Conducted by** |
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**Calibration Record (Pesticide)**

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| --- |
| **Business name:** |
| **Date of calibration** | **Equipment calibrated** | **Method of calibration** | **Reading / results** | **Action taken / comments** | **Conducted by** |
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**Pest and disease monitoring record**

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| --- |
| **Business name:** |
| **Date** | **Site/crop/weather/parameter** | **Monitoring result and action recommended**(actions may include: do nothing; biological control; chemical control; cultural control; mechanical control; technological control) | **Name of person that carried out monitoring activity** |
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**Preventive pest and disease control program**

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| --- |
| **Business name:** |
| **Date program developed** | **Name of worker/person/organisation that documented program** |
| **Crop/area to be treated** | **Target pest/disease/weed** | **Method of control to be used** (biological; chemical; cultural; mechanical; technological) | **Details of control method** | **Frequency of use/stage of crop development** (must include any limitations on the frequency of chemical use per crop/season) |
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**Pesticide Application Record**

**Location**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Application Date** | **Start Time** | **Finish Time** | **Location** | **Crop** |
|  |  |  |  |  |

**Pesticide**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chemical Used** | **Batch Number (if applicable)** | **Rate of Application** | **Quantity Applied** | **Equipment Used / Method** |
|  |  |  |  |  |
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**Weather**

|  |  |
| --- | --- |
| **Wind Speed** | **Wind Direction** |
|  |  |

|  |  |
| --- | --- |
| **Withholding Period (WHP) or Earliest Harvest Date (EHD)** |  |

|  |  |
| --- | --- |
| **Method of Disposal (leftover chemicals)** |  |

|  |  |
| --- | --- |
| **Name and signature of person who applied the pesticide**  |  |
|  |

**Maintenance and Service – Irrigation system application rate record**

Refer to the Reef Certification Interpretative Guidelines - **Do you know the rate of water applied by your irrigation system (ie mm/hr or L/hr)?** – for calculation assistance

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Irrigation System** | **Pressure compensated Y / N** | **Flow Rate litres/hr** | **Wetted area (m2)** | **Emitter Pressure** | **mm/hr applied** | **Worker Responsible** |
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**Water Management program**

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| --- |
| **Business name:** |
| **Date developed:** | **Completed by:** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Crop** | **Variety** | **Crop Area (Ha)** | **Water Required** **(ML/Ha)** | **Water Required** **(total for crop)** | **Irrigation Method** |
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**Action Planning**

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| --- |
| **Business name:** |
| **Date conducted** | **Completed by:** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Management Practice**  | **Areas to consider** | **Risk / value identified via Hort360 Reef BMP module report** | **Number#** |
| **Nutrient** | Testing, budgets, calibration, application methods, application rate, records |  |  |
| **Sediment** | Buffers, inter-row, beds, traps, roads |  |  |
| **Pesticide** | Determine needs, drift, records, calibration |  |  |
| **Water** | Application, monitoring |  |  |

**Action Planning (cont.)**

|  |  |  |
| --- | --- | --- |
| **Number#** | **Location on property / site** | **Actions planned** |
|  |  |
| **Who is responsible** | **Timeframe to complete** | **Evaluate** |
| Name:  | Date: |
| Position:  | **Sign-off** | Name: | Date: |

|  |  |  |
| --- | --- | --- |
| **Number#** | **Location on property / site** | **Actions planned** |
|  |  |
| **Who is responsible** | **Timeframe to complete** | **Evaluate** |
| Name: | Date: |
| Position: | **Sign-off** | Name: | Date: |

|  |  |  |
| --- | --- | --- |
| **Number#** | **Location on property / site** | **Actions planned** |
|  |  |
| **Who is responsible** | **Timeframe to complete** | **Evaluate** |
| Name: | Date: |
| Position: | **Sign-off** | Name: | Date: |

|  |  |  |
| --- | --- | --- |
| **Number#** | **Location on property / site** | **Actions planned** |
|  |  |
| **Who is responsible** | **Timeframe to complete** | **Evaluate** |
| Name: | Date: |
| Position: | **Sign-off** | Name: | Date: |

|  |  |  |
| --- | --- | --- |
| **Number#** | **Location on property / site** | **Actions planned** |
|  |  |
| **Who is responsible** | **Timeframe to complete** | **Evaluate** |
| Name: | Date: |
| Position: | **Sign-off** | Name: | Date: |